E/ECE/324
E/ECE/TRANS/505 } Rev.1/Add.18/Rev.3/Amend.1
26 September 1995

AGREEMENT

CONCERNING THE ADOPTION OF UNIFORM CONDITIONS OF APPROVAL AND RECIPROCAL RECOGNITION OF APPROVAL FOR MOTOR VEHICLE EQUIPMENT AND PARTS

done at Geneva on 20 March 1958

Addendum 18: Regulation No. 19

Revision 3 – Amendment 1

Incorporating:
Supplement 5 to the 02 series of amendments – Date of entry into force: 16 June 1995
Corrections to the Revision 3 of the Regulation referred to in the depositary notification C.N.209.1995.TREATIES-38 of 4 August 1995

UNIFORM PROVISIONS CONCERNING THE APPROVAL OF MOTOR VEHICLE FRONT FOG LAMPS

UNITED NATIONS

Under Contents, "Annexes", add the following titles:

"Annex 6 - Minimum requirements for conformity of production control procedures

Annex 7 - Minimum requirements for sampling by an inspector"

Paragraphs 1.4.4. and 6.3., amend the word "type" to read "category".

Paragraph 2.2.1., amend to read:

"... specified; it shall be H1, H2, H3, H4, H7, HB3, HB4, H27W/1 or H27W/2 filament lamp(s) as specified in Regulation No. 37;"

Paragraph 4.2.1.1., footnote 3/, amend to read:

"3/ 1 for Germany, ... 8 for the Czech Republic, ..., 24 (vacant), 25 for Croatia, 26 for Slovenia, 27 for Slovakia, 28 for Belarus and 29 for Estonia. Subsequent numbers ..."

Paragraph 6.3., the table, amend to read:

"

Filament lamp category	Approximate supply voltage (V) for measurement	Light flux in lumens
H1	12	1 150
H2	12	1 300
H3	12	1 100
H4	12	750 */
H7	12	1 100
HB3	12	1 300
HB4	12	825
H27W/1	12	350
H27W/2	12	350

*/ 55 W filament "

Paragraph 11, replace by the following text:

"11. CONFORMITY OF PRODUCTION

11.1. Front fog lamps approved under this Regulation shall be so manufactured as to conform to the type approved by meeting the requirements set forth in paragraphs 6 and 7.

11.2. In order to verify that the requirements of paragraph 11.1. are met, suitable controls of the production shall be carried out.

11.3. The holder of the approval shall in particular:

11.3.1. ensure the existence of procedures for the effective control of the quality of products;

11.3.2. have access to the control equipment necessary for checking the conformity to each approved type;

11.3.3. ensure that data of test results are recorded and that related documents shall remain available for a period to be determined in accordance with the administrative service;

11.3.4. analyse the results of each type of test in order to verify and ensure the stability of the product characteristics making allowance for variation of an industrial production;

11.3.5. ensure that for each type of product at least the tests prescribed in annex 6 to this Regulation are carried out;

11.3.6. ensure that any collecting of samples giving evidence of non-conformity with the type of test considered shall give rise to another sampling and another test. All the necessary steps shall be taken to re-establish the conformity of the corresponding production.

11.4. The competent authority which has granted type approval may at any time verify the conformity control methods applicable to each production unit.

11.4.1. In every inspection, the test books and production survey records shall be presented to the visiting inspector.

11.4.2. The inspector may take samples at random to be tested in the manufacturer's laboratory. The minimum number of samples may be determined in the light of the results of the manufacturer's own checks.

11.4.3. When the quality level appears unsatisfactory or when it seems necessary to verify the validity of the tests carried out in the application of paragraph 11.4.2. above, the inspector shall select samples, to be sent to the technical service which has conducted the type approval tests, using the criteria of annex 7.

11.4.4. The competent authority may carry out any test prescribed in this Regulation. These tests will be on samples selected at random without causing distortion of the manufacturer's delivery commitments and in accordance with the criteria of annex 7.

11.4.5. The competent authority shall strive to obtain a frequency of inspection of once every two years. However, this is at the discretion of the competent authority and their confidence in the arrangements for ensuring effective control of the conformity of

production. In the case where negative results are recorded, the competent authority shall ensure that all necessary steps are taken to re-establish the conformity of production as rapidly as possible.

11.5. Front fog lamps with apparent defects are disregarded."

Annex 1, item 2, amend to read:

"Front fog lamp using a filament lamp category H1, H2, H3, H4, H7, HB3, HB4, H27W/1, H27W/2 2/ . . . . . "

Annex 4, paragraph 2.2.1., correct the equation to read:

$$\Delta r_I = |r_3 - r_{60}|$$

Annex 4, paragraph 2.2.2., correct the equation to read:

$$\frac{\Delta r_I + \Delta r_{II}}{2} \leq 2\ mrad$$

Annex 4, paragraph 3, should be deleted.

Annex 5, paragraphs 1.1. and 1.2., amend to read:

"1.1. The samples supplied pursuant to paragraph 2.2.4. of this Regulation shall satisfy the specifications indicated in paragraphs 2.1. to 2.5. below.

1.2. The two samples of complete lamps supplied pursuant to paragraph 2.2.3. of this Regulation and incorporating lenses of plastic material shall, with regard to the lens material, satisfy the specifications indicated in paragraph 2.6. below."

Annex 5, paragraph 2.1.2.1, amend to read:

"2.1.2.1. Method

Photometric measurements shall be carried out on the samples before and after the test.

These measurements shall be made using a standard lamp, at the following points:

HV and E_{max} zone D."

Annex 5, paragraph 2.4.2., correct the reference to paragraph "2.2.4." to read "2.2.4.1.1"

Paragraph 2.6.1.2., amend to read:

"2.6.1.2. After the test, the results of photometric measurements carried out on the lamp in accordance with this Regulation shall not exceed by more than 30 per cent the maximum values prescribed in zones A and B."

Annex 5 - Appendix 1,

Title of table A, amend to read:

"A. Tests on plastic materials (lenses or samples of material supplied pursuant to paragraph 2.2.4. of this Regulation)."

Table A, the first column, amend test "1.2." to read "1.1.2."

Title of table B, amend to read:

"B. Tests on complete lamps (supplied pursuant to paragraph 2.2.3. of this Regulation)."

Annex 5, Appendix 3, paragraph 1.2., correct the word "Mohr" to read "Mohs".

Add new annexes 6 and 7, to read:

"Annex 6

MINIMUM REQUIREMENTS FOR CONFORMITY OF PRODUCTION CONTROL PROCEDURES

1. GENERAL

1.1. The conformity requirements shall be considered satisfied from a mechanical and geometric standpoint, if the differences do not exceed inevitable manufacturing deviations within the requirements of this Regulation.

1.2. With respect to photometric performances, the conformity of mass-produced front fog lamps shall not be contested if, when testing photometric performances of any front fog lamp chosen at random and equipped with a standard filament lamp, no measured value deviates unfavourably by more than 20 per cent from the value prescribed in this Regulation (points B 50 and left and right bottom corners of zone D);

If the results of the tests described above do not meet the requirements, tests on the front fog lamp shall be repeated using another standard filament lamp.

1.3. With respect to the verification of the change in vertical position of the cut-off line under the influence of heat, the following procedure shall be applied:

One of the sampled front fog lamps shall be tested according to the procedure described in paragraph 2.1. of annex 4 after being subjected three consecutive times to the cycle described in paragraph 2.2.2. of annex 4.

The front fog lamp shall be considered as acceptable if Δr does not exceed 3.0 mrad.

If this value exceeds 3.0 mrad but is not more than 4.0 mrad, a second front fog lamp shall be subjected to the test after which the mean of the absolute values recorded on both samples shall not exceed 3.0 mrad.

1.4. The chromaticity coordinates shall be complied with when the front fog lamp is equipped with a filament lamp set to Standard A colour temperature.

The photometric performance of a front fog lamp emitting an enlarged selective yellow light when equipped with a colourless filament lamp shall be the values contained in this Regulation multiplied by 0.84.

2. MINIMUM REQUIREMENTS FOR VERIFICATION OF CONFORMITY BY THE MANUFACTURER

For each type of front fog lamp the holder of the approval mark shall carry out at least the following tests, at appropriate intervals. The tests shall be carried out in accordance with the provisions of this Regulation.

If any sampling shows non-conformity with regard to the type of test concerned, further samples shall be taken and tested. The manufacturer shall take steps to ensure the conformity of the production concerned.

2.1. Nature of tests

Tests of conformity in this Regulation shall cover the photometric characteristics and the verification of the change in vertical position of the cut-off line under the influence of heat.

2.2. Methods used in tests

2.2.1. Tests shall generally be carried out in accordance with the methods set out in this Regulation.

2.2.2. In any test of conformity carried out by the manufacturer, equivalent methods may be used with the consent of the competent authority responsible for approval tests. The manufacturer is responsible for proving that the applied methods are equivalent to those laid down in this Regulation.

2.2.3. The application of paragraphs 2.2.1. and 2.2.2. requires regular calibration of test apparatus and its correlation with measurements made by a competent authority.

2.2.4. In all cases the reference methods shall be those of this Regulation, particularly for the purpose of administrative verification and sampling.

2.3. Nature of sampling

Samples of front fog lamps shall be selected at random from the production of a uniform batch. A uniform batch means a set of front fog lamps of the same type, defined according to the production methods of the manufacturer.

The assessment shall in general cover series production from individual factories. However, a manufacturer may group together records concerning the same type from several factories, provided these operate under the same quality system and quality management.

2.4. Measured and recorded photometric characteristics

The sampled front fog lamp shall be subjected to photometric measurements at the points provided for in the Regulation, the reading being limited to points B 50 and left and right bottom corners of zone D (see figure in annex 3).

2.5. Criteria governing acceptability

The manufacturer is responsible for carrying out a statistical study of the test results and for defining, in agreement with the competent authority, criteria governing the acceptability of his products in order to meet the specifications laid down for verification of conformity of products in paragraph 11.1. of this Regulation.

The criteria governing the acceptability shall be such that, with a confidence level of 95 per cent, the minimum probability of passing a spot check in accordance with annex 7 (first sampling) would be 0.95.

Annex 7

MINIMUM REQUIREMENTS FOR SAMPLING BY AN INSPECTOR

1. GENERAL

1.1. The conformity requirements shall be considered satisfied from a mechanical and a geometric standpoint, in accordance with the requirements of this Regulation, if any, if the differences do not exceed inevitable manufacturing deviations.

1.2. With respect to photometric performance, the conformity of mass-produced front fog lamps shall not be contested if, when testing photometric performances of any front fog lamp chosen at random and equipped with a standard filament lamp no measured value deviates unfavourably by more than 20 per cent from the values prescribed in this Regulation (points B 50 and left and right bottom corners of zone D).

1.2.1. If the results of the tests described above do not meet the requirements, tests on the front fog lamp shall be repeated using another standard filament lamp.

1.2.2. Front fog lamps with apparent defects are disregarded.

1.3. The chromaticity coordinates shall be complied with when the front fog lamp is equipped with a filament lamp set to Standard A colour temperature.

The photometric performance of a front fog lamp emitting enlarged selective yellow light when equipped with a colourless filament lamp shall be multiplied by 0.84.

2. FIRST SAMPLING

In the first sampling four front fog lamps are selected at random. The first sample of two is marked A, the second sample of two is marked B.

2.1. <u>The conformity is not contested</u>

2.1.1. Following the sampling procedure shown in Figure 1 of this annex the conformity of mass-produced front fog lamps shall not be contested if the deviation of the measured values of the front fog lamps in the unfavourable directions are:

2.1.1.1. sample A

A1:	one front fog lamp		0 per cent
	one front fog lamp	not more than	20 per cent
A2:	both front fog lamps	more than	0 per cent
	but	not more than	20 per cent
	go to sample B		

2.1.1.2. sample B

B1:	both front fog lamps	0 per cent

2.2. <u>The conformity is contested</u>

2.2.1. Following the sampling procedure shown in Figure 1 of this annex the conformity of mass-produced front fog lamps shall be contested and

the manufacturer requested to make his production meet the requirements (alignment) if the deviations of the measured values of the front fog lamps are:

2.2.1.1. sample A

A3:	one front fog lamp	not more than	20 per cent
	one front fog lamp	more than	20 per cent
	but	not more than	30 per cent

2.2.1.2. sample B

B2:	in the case of A2		
	one front fog lamp	more than	0 per cent
	but	not more than	20 per cent
	one front fog lamp	not more than	20 per cent
B3:	in the case of A2		
	one front fog lamp		0 per cent
	one front fog lamp	more than	20 per cent
	but	not more than	30 per cent

2.3. Approval withdrawn

Conformity shall be contested and paragraph 12 applied if, following the sampling procedure in Figure 1 of this annex, the deviations of the measured values of the front fog lamps are:

2.3.1. sample A

A4:	one front fog lamp	not more than	20 per cent
	one front fog lamp	more than	30 per cent
A5:	both front fog lamps	more than	20 per cent

2.3.2. sample B

B4:	in the case of A2		
	one front fog lamp	more than	0 per cent
	but	not more than	20 per cent
	one front fog lamp	more than	20 per cent
B5:	in the case of A2		
	both front fog lamps	more than	20 per cent
B6:	in the case of A2		
	one front fog lamp		0 per cent
	one front fog lamp	more than	30 per cent

3. REPEATED SAMPLING

In the cases of A3, B2, B3 a repeated sampling, third sample C of two front fog lamps and fourth sample D of two front fog lamps, selected from stock manufactured after alignment, is necessary within two months time after the notification.

3.1. The conformity is not contested

3.1.1. Following the sampling procedure shown in Figure 1 of this annex the conformity of mass-produced front fog lamps shall not be contested if the deviations of the measured values of the front fog lamps are:

3.1.1.1. sample C

C1:	one front fog lamp		0 per cent
	one front fog lamp	not more than	20 per cent
C2:	both front fog lamps	more than	0 per cent
	but	not more than	20 per cent
	go to sample D		

3.1.1.2. sample D

D1:	in the case of C2		
	both front fog lamps		0 per cent

3.2. The conformity is contested

3.2.1. Following the sampling procedure shown in Figure 1 of this annex the conformity of mass-produced front fog lamps shall be contested and the manufacturer requested to make his production meet the requirements (alignment) if the deviations of the measured values of the front fog lamps are:

sample D

D2:	in the case of C2		
	one front fog lamp	more than	0 per cent
	but	not more than	20 per cent
	one front fog lamp	not more than	20 per cent

3.3. Approval withdrawn

Conformity shall be contested and paragraph 12 applied if, following the sampling procedure in Figure 1 of this annex, the deviations of the measured values of the front fog lamps are:

3.3.1. sample C

C3:	one front fog lamp	not more than	20 per cent
	one front fog lamp	more than	20 per cent
C4:	both front fog lamps	more than	20 per cent

3.3.2. sample D

D3:	in the case of C2		
	one front fog lamp	0 or more than	0 per cent
	one front fog lamp	more than	20 per cent

4. CHANGE OF THE VERTICAL POSITION OF THE CUT-OFF LINE

With respect to the verification of the change in vertical positions of the cut-off line under the influence of heat, the following procedure shall be applied:

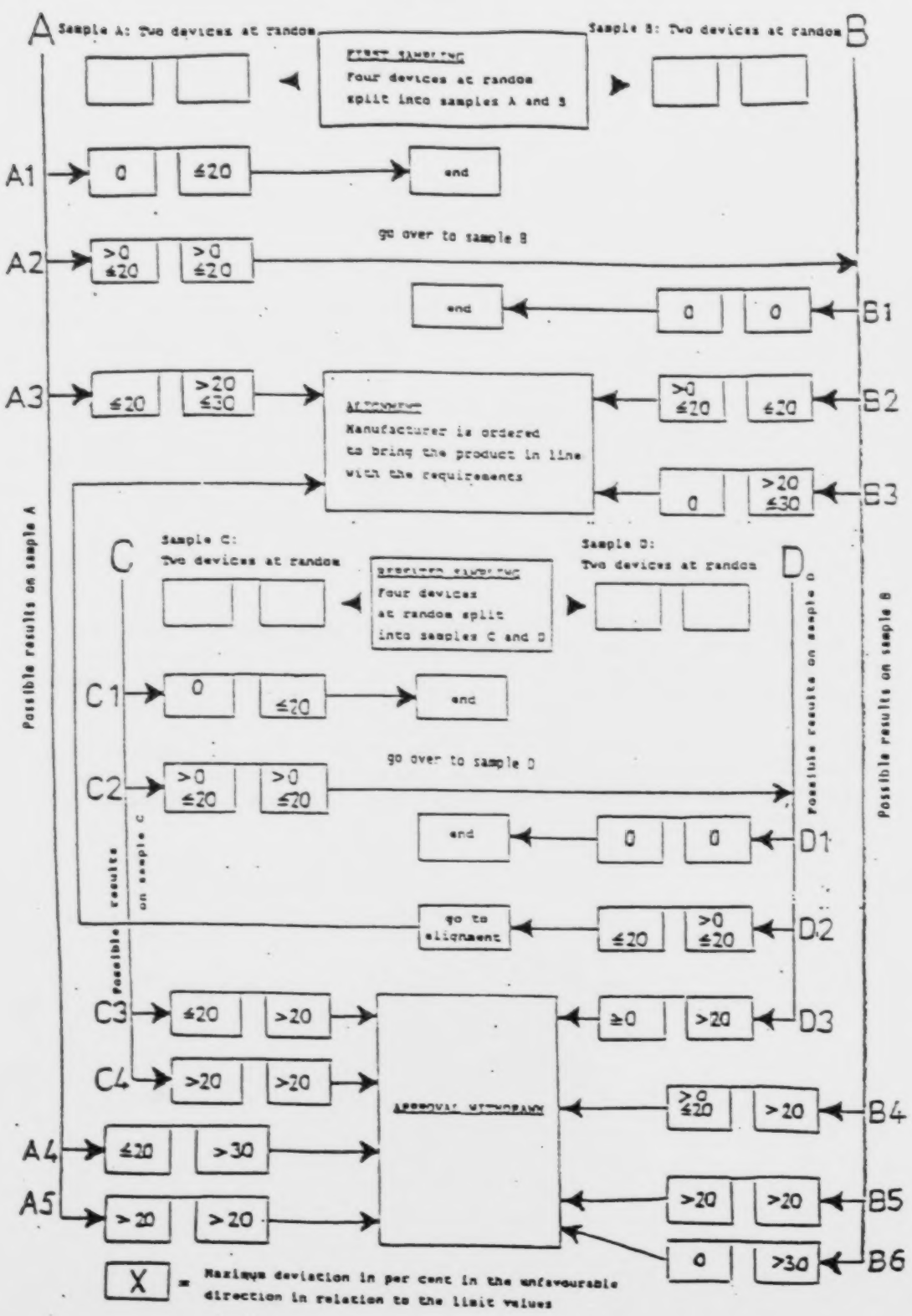
One of the front fog lamps of sample A after sampling procedure in Figure 1 of this annex shall be tested according to the procedure described in paragraph 2.1. of annex 4 after being subjected three consecutive times to the cycle described in paragraph 2.2.2. of annex 4.

The front fog lamp shall be considered as acceptable if Δr does not exceed 3.0 mrad.

If this value exceeds 3.0 mrad but is not more than 4.0 mrad, the second front fog lamp of sample A shall be subjected to the test after which the mean of the absolute values recorded in both samples shall not exceed 3.0 mrad.

However, if this value of 3.0 mrad on sample A is not complied with, the two front fog lamps of sample B shall be subjected to the same procedure and the value of Δr for each of them shall not exceed 3.0 mrad.

Figure 1


A
Sample A: Two devices at random
Sample B: Two devices at random
B
First sampling
Four devices at random split into samples A and B
A1
0
≤20
end
A2
>0 ≤20
>0 ≤20
go over to sample B
end
0
0
B1
A3
≤20
>20 ≤30
Manufacturer is ordered to bring the product in line with the requirements
>0 ≤20
≤20
B2
0
>20 ≤30
B3
Possible results on sample A
C
Sample C:
Two devices at random
Second sampling
Four devices at random split into samples C and D
Sample D:
Two devices at random
D
C1
0
≤20
end
C2
>0 ≤20
>0 ≤20
go over to sample D
end
0
0
D1
go to alignment
≤20
>0 ≤20
D2
Possible results on sample C
Possible results on sample D
Possible results on sample B
C3
≤20
>20
≥0
>20
D3
C4
>20
>20
Approval withdrawn
>0 ≤20
>20
B4
A4
≤20
>30
A5
>20
>20
>20
>20
B5
0
>30
B6
X = Maximum deviation in per cent in the unfavourable direction in relation to the limit values